



### AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of generating a transmission signal comprising a carrier signal, the method comprising the step of multiplying the carrier signal by at least one subscriber modulation signal; wherein the at least one subscriber modulation signal comprises a number, m, of amplitude levels, where  $m > 2$  ~~combining a plurality of subcarrier modulation signals with the carrier signal~~.

Claims 2-3 (Canceled).

4. (Currently Amended) A method as claimed in claim 1, wherein either of claims 2 and 3 ~~in which~~ m is selected from at least one of 3, 4, 5, 6, 7, 8 or 9.

5. (Currently Amended) A method as claimed in claim 1, wherein any of claims in ~~which~~ at least one of the plurality of subcarrier modulation signals approximates or is derived from a predetermined basis waveform.

6. (Currently Amended) A method as claimed in claim 5 in which the basis waveform is at least one of a sine wave, cosine wave, or triangular waveform.

7. (Currently Amended) A method as claimed in claim 1, wherein either of claims 5 and 6 ~~in which~~ wherein the basis waveform is selected according to desired power distribution characteristics of the transmission signal.

8. (Currently Amended) A method as claimed in claim 1, wherein the at least one subcarrier modulation signal comprises any preceding claim in ~~which~~ at least two mutually orthogonal of the plurality of subcarrier modulation signals ~~are mutually orthogonal~~.

9. (Canceled).

10. (Currently Amended) A method as claimed in claim 1, wherein any preceding claim ~~in which~~ the at least two plurality of subcarriers comprises a pair of subcarriers having a predetermined phase relationship.

11. (Currently Amended) A method as claimed in claim 1, wherein any preceding claim ~~in which the at least one plurality of subcarriers comprises an in-phase subcarrier and a quadrature phase subcarrier.~~

12. (Original) A method as claimed in claim 11 further comprising the step of determining the respective multiple amplitudes of the in-phase and quadrature phase subcarriers to maintain a substantially constant transmission signal envelope.

13. (Currently Amended) A method as claimed in claim 1, any preceding claim further comprising the steps of deriving the amplitudes associated with the ~~at least one a pair of orthogonal~~ subcarriers from a plurality of phase states.

14. (Original) A method as claimed in claim 13, in which the phase states are equally angularly distributed around a unit circle.

15. (Currently Amended) A method as claimed in claim 1, wherein any of claims 2 to 14 in which durations of the amplitudes of the ~~at least one~~ subcarrier are substantially equal.

16. (Currently Amended) A method as claimed in claim 1, wherein any of claims 2 to 14 in which the durations of the at least a pair of amplitudes of the ~~at least one~~ subcarrier are different.

17. (Currently Amended) A method as claimed in claim 15, wherein any of claims 2 to 16 in which the durations are be quantised according to an associated clock signal.

18. (Currently Amended) A method as claimed in claim 1, wherein any preceding claim ~~in which~~ at least a pair of ~~the~~ plurality of subcarriers cooperate to define an associated plurality of phase states resolved according to mutually orthogonal axes.

19. (Currently Amended) A method as claimed in claim 18, wherein any preceding claim ~~in which~~ the plurality of phase states is associated with respective ranging signals.

20. (Currently Amended) A method as claimed in claim either of claims 18 and 19, in which ~~wherein,~~ dwell times in at least some of the plurality of phase states are unequal.

21. (Currently Amended) A method as claimed in claim any of claims 18 to 20 in which wherein, a first group of the phase states have a first dwell and a second group of the phase states have a second dwell time.

22. (Currently Amended) A method as claimed in claim any of claims 18 to 21 in which wherein the dwell times are quantised according to a clock.

23. (Currently Amended) An m-level subcarrier modulation signal comprising m signal amplitudes, where  $m > 2$ , for modulating a first signal.

24. (Currently Amended) A signal as claimed in claim 23, wherein the plurality of signal amplitudes are associated with, or derived from, a plurality of phase states associated at least the m-level subcarrier modulation signal and, preferably, a second signal.

25. (Currently Amended) A signal as claimed in claim 24 in which the second signal has a predetermined phase relationship with the m-level subcarrier modulation signal.

26. (Original) A signal as claimed in claim 25 in which the predetermined phase relationship is a quadrature phase relationship.

27. (Currently Amended) A signal as claimed in claim any of claims 23 to 26 in which, wherein the m signal amplitudes comprises amplitudes representing a quantised sinusoidal signal.

28. (Currently Amended) A signal as claimed in any of claims 23 to 27 in which wherein, the m signal amplitudes are, or are in proportion to, at least one of the following sets of amplitudes  $\{+1, +1/\sqrt{2}, 0, -1/\sqrt{2}, -1\}$ ,  $\{-\sqrt{3}/2, -1/2, +1/2, +\sqrt{3}/2\}$ ,  $\{\pm\sin(67.5^\circ), \pm\sin(22.5^\circ), \pm\sin(22.5^\circ), \pm\sin(67.5^\circ)\}$ ,  $\{\pm\cos(67.5^\circ), \pm\cos(22.5^\circ), \pm\cos(22.5^\circ), \pm\cos(67.5^\circ)\}$ .

29. (Original) A signal as claimed in claim 28 wherein the signal amplitudes are selected to achieve a predetermined magnitude characteristic in a transmitted signal.

30. (Original) A signal as claimed in claim 29 in which the predetermined magnitude characteristic is a substantially constant envelope of the transmitted signal.

Claims 31-95 (Canceled).

96. (Currently Amended) A receiver system comprising means to process a signal as claimed in claim any of claims 23 to 43.

97. (Currently Amended) Computer readable storage comprising computer executable code for implementing or producing a method, signal or system as claimed in any preceding claim 1.